2006 INTERNATIONAL BUILDNG CODE

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION 505 MEZZANINES

Change summary: The maximum permitted floor area of a mezzanine has been increased from one-third to one-half of the floor area of the room in which it is located, provided the building is of noncombustible construction, an automatic sprinkler system is located throughout, and an approved emergency voice/alarm communication system is installed.

Section 505.2 Area Limitations.
Exception No 1: No change.
Exception No 2: The aggregate area of mezzanines in buildings of Type I or II construction shall not exceed one-half of the area of the room in buildings and structures equipped throughout with an approved sprinkler system in accordance with Section 903.3.1.1 and an approved voice/alarm communication system.

SECTION 506 AREA MODIFICATIONS

Change summary: The area modification formula has been modified for clarification.

Section 506.1 General. The areas limited by Table 503 shall be permitted to be increased due to frontage (I_f) and automatic sprinkler system protection (Is) in accordance with the following:

$A_a = A_t + [A_t I_f / 100] + \{A_t I_s / 100]$

A_a = Allowable area per ~~floor~~ story (square feet)
A_t = Tabular area per ~~floor~~ story in accordance with Table 503 (square feet)
I_f = Area increase factor due to frontage ~~(percent)~~ as calculated in accordance with Section 506.2
I_s = Area increase factor due to sprinkler protection ~~(percent)~~ as calculated in accordance with Section 506.3

Section 506.2 Frontage Increase. Each building shall adjoin or have access to a public way to receive an area increase for frontage. Where a building has more than 25% of its perimeter on a public way or open space having a minimum width of 20 feet, the frontage increase shall be determined in accordance with the following:

$I_f = ~~100~~ [F/P – 0.25] W/30$

I_f = Area increase due to frontage.
F = Building perimeter which fronts on a public way or open space having 20 feet open minimum width (feet)
P = Perimeter of entire building (feet).
W = Width of public way or open space (feet) in accordance with Section 506.2.1

506.3 Automatic Sprinkler system Increase. Where a building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional 200% (I_s = 2 ~~200 percent~~) for buildings with more than one story above grade plane and an additional 300% (I_s = 3 ~~300 percent~~) for buildings with no more than one story above grade plane. These increases are permitted in addition to the height and story increase in accordance with Section 504.2

Exceptions:

1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Use Group H-1~~, H-2 or H-3~~.
2. The automatic sprinkler system increase shall not apply to the floor area of an occupancy in Use Group H-2 or H-3. For mixed use buildings containing such occupancies, the allowable area shall be calculated in accordance with Section 508.3.3.2, with the sprinkler increase applicable only to the portions of the building not classified as Use Group H-2 or H-3.
3. Fire-resistance rating substitution in accordance with Table 601, Note e.

SECTION 508 MIXED USE AND OCCUPANCY

Change Summary: This section has been moved from Section 302 dealing with the required fire separation of occupancies.

Section ~~302.3.2~~ 508.3.3 Separated ~~Uses~~ Occupancies. Buildings or portions of buildings that comply with the provisions of this section shall qualify as separated occupancies.

Section 508.3.3.1 Occupancy Classification. ~~Each portion of the building shall be individually classified as to use and shall be completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire resistance rating determined in accordance with Table 302.3.2 for uses being separated. Each fire area shall comply with the height limitations based on the use of that space and the types of construction classification.~~ Separated occupancies shall be individually classified in accordance with Section 302.1. Each fire area shall comply with this code based on the occupancy classification of that portion of the building.

Section 508.3.3.2 Allowable area. In each story, the building area shall be such that the sum of the ratios of the actual floor area of each ~~use~~ occupancy divided by the allowable area ~~for~~ of each ~~use~~ occupancy shall not exceed one.

Section 503.3.3.3 Allowable Height. Each occupancy shall comply with the height limitations based on the type of construction of the building in accordance with Section 503.1. The height, in both feet and stories, of each fire area shall be measured from grade plane. This measurement shall include the height, in both feet and stories, of intervening fire areas.
Exception: Special provisions permitted by Section 509.

Section 503.3.3.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.3.3
~~**Exception**: Except for Group H and I-2 areas, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, the fire resistance ratings in Table 302.3.3 shall be reduced by 1 hour but to not less than 1 hour and to not less than that required for the floor construction according to the type of construction.~~

Section 503.3.3.4.1 Construction. Required separations shall be fire barriers in accordance with Section 706 or horizontal assemblies in accordance with Section 711, or both, so as to completely separate adjacent occupancies.

SECTION 702.1 DEFINITIONS
Change Summary: The definition of fire barrier has been modified

Fire Barrier. A fire-resistance-rated ~~vertical and horizontal~~ wall assembly of materials designed to resist the spread of fire in which ~~openings are protected~~ continuity is maintained.
Horizontal Assembly. A fire-resistance-rated floor or roof assembly of materials designed to restrict the spread of fire in which continuity is maintained.

SECTION 707 SHAFT ENCLOSURES
Change Summary: This entire section has minor changes throughout. The significant change deals with Section 707.14.1 Elevator lobbies; which states that an enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The requirements and exceptions for the lobby are presented in this section.
Section 707.14.1 Elevator Lobby An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions and the required opening protection. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within the code.

Exceptions:

1. ~~In office buildings, separations~~ Enclosed elevator lobbies are not required ~~from a~~ at the street floor ~~elevator lobby~~ provided the entire street floor is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1
2. Elevators not required to be located in a shaft in accordance with Section 707.2 are not required to have enclosed elevator lobbies.
3. Where additional doors are provided at the hoistway opening in accordance with Section 3002.6. Such doors shall be tested in accordance with UL 1784 without an artificial bottom seal.
4. In other than Group I-3, and buildings ~~more than four stories~~ having occupied floors located more than 75 feet above the lowest level of fire department vehicle access, ~~lobby separation is~~ enclosed elevator lobbies are not required where the building, ~~including the lobby and corridors leading to the lobby~~, is protected by an automatic sprinkler system installed ~~throughout~~ in accordance with Section 903.3.1.1 or 903.3.1.2.
5. Smoke partitions shall be permitted in lieu of fire partitions to separate the elevator lobby at each floor where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
6. Enclosed elevator lobbies area not required where the elevator hoistway is pressurized in accordance with Section 707.14.2

SECTION 716
Change Summary: Penetrations of shaft enclosures has been modified.

Section 716.5.3.1 Penetration of Shaft Enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.
Exceptions:

1. No change.
2. In Group B and R occupancies, equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, smoke dampers are not required at penetrations of shafts where:

~~2.1~~ Kitchen, clothes dryer, ~~B~~bathroom, and toilet room exhaust openings are installed with steel exhaust subducts, having a wall thickness of at least 0.019 inch~~es~~, and ~~that~~

2.2 That extend at least 22 inches vertically; and

2.3 An ~~the~~ exhaust fan is installed at the upper terminus of the shaft, that is powered continuously in accordance with the provisions of Section 909.11, so as to maintains a continuous upward airflow ~~upward~~ to the outside~~, or~~

2.2 ~~Ducts are used as part of an approved smoke control system, designed and installed in accordance with Section 909, and where the smoke damper will interfere with the operation of the smoke control system, or~~

3. No change

4. Smoke dampers are not required at penetrations of shafts where ducts are used as part of an approved mechanical smoke control system, designed in accordance with Section 909 and where the smoke damper will interfere with the operation of the smoke control system

SECTION 903 AUTOMATIC SPRINKLER SYTEMS
Change Summary: Under use group A2 the occupancy load for the fire area has been lowered from 300 to 100.

Section 903.2.1.2 Group A-2 An automatic sprinkler system shall be provided for Group A2 occupancies where one of the following conditions exists:
1. The fire area exceeds 5000 square feet.
2. The fire area has an occupant load of ~~300~~ 100 or more; or
3. The fire area is located on a floor other than the level of exit discharge.

SECTION 1002
Change Summary: Modification of an accessible means of egress.

Section 1002.1 Definitions. Accessible Means of Egress: A continuous and unobstructed way of egress travel from any accessible point in a building or facility ~~that provides an accessible route to an area of refuge, a horizontal exit or~~ to a public way.

SECTION 1004 OCCUPANT LOAD
Change Summary: Areas without fixed seating have been revised.

Sections 1004.1.1 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.1. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant per unit of area factor assigned to the occupancy as set forth in Table 1004.1.1. Where an intended use is not listed in Table 1004.1.1, the building official shall establish a use based on a listed use that most nearly resembles the intended use.
Exception: Where approved by the building official, the actual number of occupants for whom each occupied space, floor, or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

SECTION 1008 DOORS, GATES AND TURNSTILES
Change Summary: Egress doors in use group A or E with an occupant load of 50 or more shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

Section 1008.1.9 Panic and fire exit hardware: Where panic and fire exit hardware is installed, it shall comply with the following:
1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.

2. ~~A~~ The maximum unlatching force of shall not exceed 15 pounds.

Each door in a means of egress from ~~an occupancy of~~ a Group A or E occupancy having an occupant load of ~~100~~ 50 or more and any ~~occupancy of~~ Group H ~~1, H-2, H-3 or H-5~~ occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

Exception: A main exit of a Group A occupancy in compliance with Section 1008.1.8.3, Item 2.

Electrical rooms with equipment rated 1200 amperes or more and over 6 feet wide that contain overcurrent devices, switching devices, or control devices, with exit doors must be equipped with panic hardware and doors must swing in the direction of egress.

SECTION 1014 EXIT ACCESS
Change Summary: The means of egress is now permitted to pass through a stockroom serving a Group M occupancy, provided four specified conditions are met.

Section 1014.2 Egress through intervening spaces: Egress through intervening spaces shall comply with this section.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high hazard occupancy; and provide a discernible path of egress travel to an exit.

   Exception: Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S, or F occupancy when the adjoining or intervening rooms or spaces are the same or lesser hazard occupancy group.
2. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

Exceptions:
1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting port of the same dwelling unit or sleeping unit.
2.Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
   - 2.1 The stock is of the same hazard classification as that found in the main retail area;
   - 2.2 Not more than 50% of the exit access is through the stockroom;

2.3 The stockroom is not subject to locking from the egress side; and
2.4 There is a demarcated, minimum 44-inch-wide aisle defined by full or partial height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

3. An exit access shall not pass through a room that can be locked to prevent egress.
4. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms, or bathrooms.

SECTION 1109 OTHER FEATURES AND FACILITIES
Change Summary: Where drinking fountains are provided provisions must be made for wheelchair users as well as persons standing.

Section 1109.5 Drinking Fountains. ~~On floors where drinking fountains are provided, at least 50 percent, but not less than one fountain, shall be accessible.~~ Where drinking fountains are provided on an exterior site, on a floor, or within a secured area, the drinking fountains shall be provided in accordance with Sections 1109.5.1 and 1109.5.2

Section 1109.5.1 Minimum Number. No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheel chair and one drinking fountain shall comply with the requirements for standing persons.

Exception: A single drinking fountain that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.

Section 1109.5.2 More Than the Minimum Number. Where more than the minimum number of drinking fountains specified in Section 1109.5.1 are provided, 50% of the total number of drinking fountains provided shall comply with the requirements for persons who use a wheelchair and 50% of the total number of drinking fountains provided shall comply with the requirements for stand persons.

Exception: Where 50% of the drinking fountains yields a fraction, 50% shall be permitted to be rounded up or down provided that the total number of drinking fountains complying with this section equals 100 percent of the drinking fountains.

SECTION 1405 INSTALLATION OF WALL COVERINGS
Change Summary: A new sill height provision for windows in dwellings.

Section 1405.12.2 Window Sills. In Occupancy Groups R-2 and R-3, one and two family and multiple family dwellings, where the opening of the sill portion of an operable window is located more than 72 inches above the finish grade or other surface below, the

lowest part of the clear opening of the window shall be a minimum of 24 inches above the finish floor surface of the room in which the window is located. Glazing between the floor and 24 inches shall be fixed or have openings such that a 4 inch diameter sphere cannot pass through.

SECTION 1704 SPECIAL INSPECTIONS
Change Summary: Clarification of soil and pier special inspections.

Section 1704.7 Soils Special inspections for existing site soil conditions, fill placement, and load-bearing requirements shall be required by this section and Table 1704.7. The approved soils report, required by Section 1802.2 and the documents prepared by the registered design professional in responsible charge shall be used to determine compliance. During fill placement, the special inspector shall determine that proper materials and procedures are used in accordance with the provisions of the approved soils report, as specified in Section 1803.5

Exception: Special inspection is not required during placement of controlled fill having a total depth of 12 inches or less.

Section 1704.9 Pier Foundations. Special inspections shall be performed during installation and testing of pier foundations as required by Table 1704.9. The approved soils report, required by Section 1802.2, and the documents prepared by the registered design professional in responsible charge shall be used to determine compliance.

SECTION 1704.1.1 Statement of Special Inspections. The permit applicant shall submit a statement of special inspections prepared by the registered design professional in responsible charge in accordance with Section 106.1 as a condition for permit issuance. This statement shall ~~include the items required by~~ be in accordance with Section 1705.

Exceptions:

1. A statement of special inspections is not required for structures designed and constructed in accordance with the conventional construction provisions of Section 2308.
2. The statement of special instructions is permitted to be prepared by a qualified person approved by the building official for construction not designed by a registered design professional.

SECTION 1708 STRUCTURAL TESTING FOR SEISMIC RESISTANCE
Change Summary: Clarification of the subject matter and related responsibility of the registered design professional in responsible charge.

Section 1708.5 **Seismic Qualification of Mechanical and Electrical Equipment.** The registered design professional in responsible charge shall state the applicable seismic qualification requirements for designated seismic systems on the construction documents. Each manufacturer of designated seismic system components shall test or analysis the component and its mounting system or anchorage and submit a certificate of compliance for review and acceptance by the registered design professional in responsible charge of the design of the designated seismic system and for approval by the building official. ~~The evidence of compliance~~ Qualification shall be by actual test on a shake table, by three-dimensional shock tests, by an analytical method using dynamic characteristics and forces, by the use of experience data (i.e., historical data demonstrating acceptable seismic performance), or by more rigorous analysis providing for equivalent safety~~. The special inspector shall examine the designated seismic system and determine whether the anchorage and label conform with the evidence of compliance.~~

SECTION 2206 STEEL JOIST
Change Summary: New section clarifying the responsibilities of the registered design professional.

Section 2206.2 Design. The Registered Design Professional shall indicate on the construction documents the steel joist and/or steel joist girder designations from the specifications listed in Section 2206.1 and shall indicate the requirements for joist and joist girder design, layout, end support, anchorage, non-SJI standard bridging, bridging termination connections and bearing connection design to resist uplift and lateral loads. These documents shall indicate special requirements as follows:

1. Special loads including:
    a. Concentrated loads
    b. Non-uniform loads
    c. Net uplift loads
    d. Axial loads
    e. End moments, and
    f. Connection forces

2. Special considerations including:
    a. Profiles for non-standard joist and joist girder configurations (Standard joist and joist girder configurations are as indicated in the SJI catalog).
    b. Oversized or other non-standard web openings, and
    c. Extended ends

3. Deflection criteria for live and total loads for non-SJI standard joists

2006 INTERNATIONAL PLUMBING CODE

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION 314 CONDENSATE DISPOSAL

Change Summary: The use of a water level detection device has been added as a substitute for a secondary drain pan. Additional requirements for downflow units and all other coils that have no secondary drain pan and no means to install an auxiliary drain pan.

Section [M] 314.2.3 Auxiliary and secondary drain systems In addition to the requirements of Section 314.2.2, a secondary drain or auxiliary drain pan shall be required for each cooling or evaporator coil or fuel-fired appliance that produces condensate, where damage to any building components will occur as a result of overflow from the equipment drain pan or stoppage in the condensate drain piping. One of the following methods shall be used:

Method 1, 2, and 3 No change

A water level detection device conforming to UL 508 shall be provided that will shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line or in the equipment-supplied drain pan located at a point higher than the primary drain line connection and below the overflow rim of such pan.

Exception: Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

Section [M] 314.2.3.1 Water level monitoring: On downflow units and all other coils that have no secondary drain and no means to install an auxiliary drain pan, a water level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Externally installed devices and devices installed in the drain line shall not be permitted.

SECTION 403 MINIMUM PLUMBING FACILITES
Change Summary: The requirements for use group A1, A2, A3 and B have been revised.

Table 403.1 Minimum Number of Required Plumbing Fixtures:

1. Sub note "d" dealing with use groups A1, A2, and A3 "The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
2. Use Group B lavatories for male or female: "1 per 40 for the first 80 and 1 per 80 for the remainder exceeding ~~50~~ 80.

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SECTION 408 BIDETS
Change Summary: Will now require temperature limiting deice for bidets.

Section 408.3 Bidet water temperature: The discharge water temperature from a bidet fitting shall be limited to a maximum temperature of 110 degrees F by a water temperature limiting device conforming to ASSE 1070

SECTION 416 LAVATORIES
Change Summary: Tempered water (85-110 degrees) will now be required for all public hand washing facilities.

Section 416.5 Tempered water for public hand-washing facilities: Tempered water shall be delivered from public hand-washing facilities through an approved water temperature limiting device that conforms to ASSE 1070.

SECTION 419 URINALS
Change Summary: Now recognizes the use of waterless urinals.

Section 419.1 Approval: Urinals shall conform to ANSI Z124.9,ASME A112.19.2M, CSA B45.1 or CSA B45.5. Urinals shall conform to the water consumption requirements of Section 604.4. Water supplied urinals ~~Urinals~~ shall conform to the hydraulic performance requirements of ASME A 112.19.6, CSA B45.1 or CSA B45.5

SECTION 421 WHIRLPOOL BATHS
Change Summary: This new section addresses the access requirements for whirlpool tub circulation pumps.

Section 421.5 Access to pump: Access shall be provided to circulation pumps in accordance with the fixture or pump manufacturer's installation instructions. Where the manufacturer's instructions do not specify the location and minimum size of field fabricated access openings, a 12 inch by 12 inch minimum sized opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet from the access opening, an 18 inch by 18 inch minimum sized opening shall be

installed. A door or panel shall be permitted to close the opening. In all cases, the access opening shall be unobstructed and of the size necessary to permit the removal and replacement of the circulation pump.

SECTION 424 FAUCETS AND OTHER FIXTURE FITTINGS
Change Summary: Bathtubs and whirlpool bathtubs must be provided with a water temperature limiting device.

Section 424.5 Individual shower valves: The hot water supplied to bathtubs and whirlpool bathtubs shall be limited to a maximum temperature of 120 degrees F by a water temperature limiting device that conforms to ASSE 1070, except where such protection is otherwise provided by a combination tub/shower valve in accordance with Section 424.3

SECTION 706 CONNECTIONS BETWEEN DRAINAGE PIPING AND FITTINGS
Change Summary: This new section specifically addresses where this fitting is allowed and disallowed.

Section 706.4 Heel or side inlet quarter bends: Heel-inlet quarter bends shall be an acceptable means of connection, except where the quarter bend serves a water closet. A low-heel inlet shall not be used as a wet-vented connection. Side-inlet quarter bends shall be an acceptable means of connection for drainage, wet venting and stack venting arrangements.

SECTION 903 OUTDOOR VENT EXTENSION
Change Summary: This entire section has been restated for clarity and intent of the traditional "main vent" rule.

Section 903.1 Required vent extension. The vent system serving each building drain shall have at least one vent pipe that extends to the outdoors.

Section 903.1.1 Installation. The required vent shall be a dry vent that connects to the building drain or an extension of a drain that connects to the building drain. Such vent shall not be an island fixture vent as allowed by Section 913.

Section 903.1.2 Size. The required vent shall be sized in accordance with Section 916.2 based on the required size of the building drain.

Section 903.2 Vent stack required. A vent stack shall be required for every drainage stack that has five branch intervals or more.

Section 903.3 Vent termination. Every vent stack or stack vent shall terminate outdoors to the open air or to a stack-type air admittance valve in accordance with Section 917.

Section 903.4 and 903.5 no change.

SECTION 906 FIXTURE VENTS
Change Summary: Water closets are now exempt from the "trap to vent distance" rule.

Section 906.1 Distance of trap from vent: Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in Table 906.1
Exception: The developed length of the fixture drain from the trap weir to the vent fitting for self-siphoning fixtures, such as water closets, shall not be limited.

PROPOSED CITY OF SPRINGFIELD AMENDMENTS TO THE PLUMBING CODE

SECTION 917 AIR ADMITTANCE VALVES
Change Summary: To limit the use of air admittance valves.

New Section 917.1.1 Permitted locations: The use of air admittance valves shall be permitted only in the remodel of existing buildings and shall not be permitted in new buildings and building additions unless prior approval is granted by the authority having jurisdiction.

2006 INTERNATIONAL MECHANICAL CODE

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION 301 GENERAL
Change Summary: Wording has been added that adds a requirement that the appliance must be listed and labeled for the application in which they are installed.

Section 301.4 Listed and labeled: ~~All appliances~~ Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance with Section 105.
Exception: Listing and labeling of equipment and applications used for refrigeration shall be in accordance with Section 1101.2

SECTION 304 INSTALLATION
Change Summary: Guards will now be required for roof hatches within 10 feet of the roof edge.

Section 304.10 Guards: Guards shall be provided where appliances, equipment, fans or other components that require service and roof hatch openings are located within 10 feet of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches above the floor, roof or grade below. The guard shall extend not less than 30 inches beyond each end of such appliance, equipment, fan ~~or~~ components and roof openings and the top of the guard shall be located not less than 42 inches above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21 inch sphere and shall comply with the loading requirements for guards specified in the International Building Code.

SECTION 307 CONDENSATE DISPOSAL
Change Summary: The use of a water level detection device has been added as a substitute for a secondary drain pan. Additional requirements have been added for downflow units and all other coils that have no secondary drain pan and no means to install an auxiliary drain pan.

SECTION 307 CONDENSATE DISPOSAL

Section 307.2.3 Auxiliary and secondary drain systems In addition to the requirements of Section 307.2.1, a secondary drain or auxiliary drain pan shall be required for each cooling or evaporator coil or fuel-fired appliance that produces condensate, where damage to any building components will occur as a result of overflow from the equipment drain pan or stoppage in the condensate drain piping. One of the following methods shall be used:

Method 1, 2, and 3 No change

5. A water level detection device conforming to UL 508 shall be provided that will shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line or in the equipment-supplied drain pan located at a point higher than the primary drain line connection and below the overflow rim of such pan.

   Exception: Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

Section 307.2.3.1 Water level monitoring: On downflow units and all other coils that do not have a secondary drain and do not have a means to install an auxiliary drain pan, a water level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Externally installed devices and devices installed in the drain line shall not be permitted.

SECTION 506 COMMERCIAL KITCHEN HOOD VENTILATION SYSTEM DUCTS AND EXHAUST EQUIPMENT

Change Summary: Specific inspection requirements are now included and clarified in this section. NOTE: A specific inspection will now be required of the grease duct before any concealment by building materials, coatings or fire wraps.

Section 506.3.3.1 Grease duct test: Prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed in the presence of the code official. Ducts shall be considered to be concealed where installed in shafts or covered by coatings or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide the necessary equipment and perform the grease duct leakage test. A light test or an approved equivalent test method shall be performed to determine that all welded and brazed joints are liquid tight. A light test shall be performed by passing a lamp having a power rating of not less than 100 watts through the entire section of duct work to be tested. The lamp shall be open so as to emit light equally in all directions perpendicular to the duct walls.

A test shall be performed for the entire duct system, including the hood-to- duct connection. The ductwork shall be permitted to tested in sections, provided that every joint is tested.

SECTION 507 COMMERCIAL KITCHEN HOODS

Change Summary: Section 507.2.1.1 Operation: Type I hood systems shall be designed and installed to automatically activate the exhaust fan whenever cooking operations occur. Section 507.2.2 Type II hoods: Under exception No.2 additional clarification is now provided as to where a Type II hood will not be required.

Section 507.2.1.1 Operation. Type I hood systems shall be designed and installed to automatically activate the exhaust fan whenever cooking operations occur. The activation of the exhaust fan shall occur through an interlock with the cooking appliances, by means of heat sensors or by means of other approved methods.

Section 507.2.2 Type II hoods Exceptions:

Exceptions 1 and 2 no change.

3. A single light-duty electric convection, bread, retherm or microwave oven. The additional heat and moisture loads generated by such appliances shall be accounted for in the design of the HVAC system.
4. A Type II hood is not required for the following electrically heated appliances: toasters, steam tables, popcorn poppers, hot dog cookers, coffee makers, rice cookers, egg cookers, hold/warming ovens. The additional heat and moisture loads generated by such appliances shall be accounted for in the design of the HVAC system

2006 INTERNATIONAL FUEL GAS CODE

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION 307 CONDENSATE DISPOSAL
Change Summary: Additional drain pan requirements have been added.

Section 307.5 Auxiliary drain pan. Category IV condensing appliances shall be provided with an auxiliary drain pan where damage to any building component will occur as a result of stoppage in the condensate drainage system. Such pan shall be installed in accordance with the applicable provisions of Section 307 of the International Mechanical Code
Exception: An auxiliary drain pan shall not be required for appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system

SECTION 502 VENTS
Change Summary: New text requires vents of all types to be protected from fastener damage by using shield plates.

Section 502.7 Protection against physical damage: In concealed locations, where a vent is installed through holes or notches in studs, joist, rafters or similar members less than 1.5 inches from the nearest edge of the member, the vent shall be protected by shield plates. Shield plates shall be a minimum of 1/16 in h thick steel, shall cover the area of the vent where the member is notched or bored and shall extend a minimum of 4 inches above sole plates, below top plates and to each side of a stud, joist or rafter.

SECTION 503 VENTING OF APPLIANCES
Change Summary: New text provides the proper methods for passing a vent pipe through an above –ceiling air-handling space or other nonducted portion of an air-handling system.

Section 503.3.6 Above-ceiling air-handling spaces: Where a venting system passes through an above ceiling air-handling space or other nonducted portion of an air-handling system, the venting system shall conform to one of the following requirements:

1. The venting system shall be listed special gas vent; other venting system serving a Category III or Category IV appliance; or other positive pressure vent, with jonts sealed in accordance with the appliance or vent manufacturer's instructions.
2. The venting system shall be installed such that fittings and joints between sections are not installed in the above-ceiling space.
3. The venting system shall be installed in a conduit or enclosure with sealed joints separating the interior of the conduit or enclosure from the ceiling space.

PROPOSED CITY OF SPRINGFIELD AMENDMENTS TO THE FUEL GAS CODE

SECTION 402 PIPE SIZING
Change Summary: Material limitations of pipe material based on gas pressure.

Section 402.6.1 2PSIG or less: For design operating pressures of 2 psig or less, piping materials shall be in conformance with Section 403 of the International Fuel Gas Code/2006 as amended herein.

Section 402.6.2 Above 2 PSIG: Design operating pressures greater than2 psig and less than 5 psig shall only be allowed if the pipe type is welded steel or Corrugated Stainless Steel Tubing.

SECTION 404 PIPING SYSTEM INSTALLATION
Change Summary: Specific installation requirements have been added regarding CSST protection.

Section 404.5.1 Corrugated Stainless Steel Tubing (CSST) Physical damage protection: All CSST piping located within a wall cavity shall be protected by installing the CSST inside a metal sleeve made of Schedule 40 steel pipe or floppy galvanized steel *c*onduit as provided by the CSST manufacturer.

Section 404.5.2 Corrugated Stainless Steel Tubing (CSST) Physical damage protection: All CSST striker plate protection shall be CSA approved hardened carbon steel, listed for CSST systems.

404.14.2.1 Corrugated Stainless Steel Tubing (CSST): At the meter location all CSST piping shall terminate utilizing the pipe manufacturer's approved meter termination fitting securely anchored to the structure in such a manner to properly support the meter. No CSST fitting connections shall be concealed within the structure at the meter location.

SECTION 405 PIPING BENDS AND CHANGES IN DIRECTION
Change Summary: Specific bending requirements for CSST have been added.

Section 405.5 Corrugated Stainless Steel Tubing (CSST): The minimum bending radius for CSST shall be as follows:

Pipe size 3/8,1/2 and ¾ inch diameter – minimum radius 3 inches
Pipe size 1, 11/4, 11/2 inch diameter – minimum radius 5 inches
Pipe size 2 inch and larger – minimum radius 6 inches

SECTION 406 INSPECTION, TESTING AND PURGING
Change Summary: Testing requirement modifications.

Section 406.4.1 Test pressure: The test pressure to be used shall be no less than 11/2 times the proposed maximum working pressure, but not less than 3 psig, irrespective of design pressure. Where the test pressure exceeds 125 psig, the test pressue shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. The test on all gas piping designed as a 2PSIG or less system shall be 20 PSIG with a 15 minute duration. The test on all gas piping designed above 2 PSIG shall be 20 PSIG with a 120 minute duration.

SECTION 407 PIPE SUPPORT
Change Summary; Specific support requirements for CSST have been added.

Section 407.2.1 Corrugated Stainless Steel Tubing (CSST): All CSST greater than 16 inches in length and run horizontally shall be continuously supported and shall be attached to the continuous support member at intervals not to exceed 6 feet on center.

SECTION 410 FLOW CONTROLS
Change Summary: Additional vent piping termination requirements have been added.

Section 410.3.1 Vent pipe termination: All regulator relief vents terminating outdoors shall be provided with a manufactured termination fitting equipped with an internal stainless steel screen.

2006 INTERNATIONAL RESIDENTIAL CODE

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION R302 EXTERIOR WALL LOCATION

Change Summary: This section along with the new table has been rewritten for the purpose of clarifying the requirements for exterior wall locations.

Section R302.1

Construction, projections, openings, and penetrations of exterior walls of dwellings and accessory building shall comply with Table R302.1. These provisions shall not apply to the walls, projections, openings, or penetrations in walls that are perpendicular to the line used to determine the fire separation distance. Projections beyond the exterior wall shall not extend more than 12 inches into the areas where openings are prohibited.

Exceptions:

1. Detached tool sheds and storage sheds, playhouses, and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
2. Detached garages accessory to a dwelling located within 2 feet of a lot line may have roof eave projections not exceeding 4 inches.
3. Foundation vents installed in compliance with this code are permitted.

SECTION R303 LIGHT, VENTILATION AND HEATING

Change Summary: Modification

Section R303.6.1 Light Activation. ~~The control for activation of the required interior stairway lighting shall be accessible at the top and bottom of each stairway without traversing any steps.~~ Where lighting outlets are installed in interior stairways, there shall be a wall switch at each floor level to control the lighting outlet where the stairway has six or more risers. The illumination of exterior stairways shall be controlled from inside the dwelling unit.

Exception: Lights that are continuously illuminated or automatically controlled.

SECTION R309 GARAGES AND CARPORTS

Change Summary: The new section allows for other penetrations other than ductwork.

Section R309.1.2 Other penetrations. Penetrations through the separation required in Section R309.2 shall be protected by filling the opening around the penetrating item with approved material to resist the free passage of flame and products of combustion.

SECTION R311 MEANS OF EGRESS
Change Summary: The landing provisions have been reworded and now clearly allows for a single step down landing at the primary exterior exit door while recognizing a two step entry at other exterior doors. Also clarification on interior stairs.

Section R311.4.3 Landings at doors. There shall be a floor or landing each side of each door. The floor or landing at the exterior door shall not be more than 1.5 inches lower than the top of the threshold. The landing shall be permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2 percent)
Exception:

1. Where a stairway of two or fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door provided the door, other than an exterior storm or screen door, does not swing over the stairway.

~~The floor or landing at the exit door required by Section R311.4.1 shall not be more than 1.5 inches lower than the top of the threshold. The floor or landing at exterior doors other than the exit door required by Section R311.4.1 shall not be required to comply with this requirement but shall have a rise no greater than that permitted in Section R311.5.3~~
~~Exception:~~

2. The exterior landing at an exterior doorway shall not be more than 7 ¾ inches below the top of the threshold, provided the door, other than an exterior storm or screen door does not swing over the landing.
3. The height of floors at exterior doors other than the exit door required by Section R311.4.1 shall not be more than 7 ¾ inches lower than the top of the threshold.

The width of each landing shall not be less than the door served. Each landing shall have a minimum dimension of 36 inches measured in the direction of travel.

Section R311.5.4 Landings for Stairways. There shall be a floor or landing at the top and bottom of each stairway.

Exception: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.

SECTION R401 GENERAL
Change Summary: Additional clarification and specific criteria for swales.

R401.3 Drainage: Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet.
Exception: Where lot lines, walls slopes or other physical barriers prohibit 6 inches of fall within 10 feet, the final grade shall slope away from the foundation at a minimum slope of 5 percent and the water shall be directed to drains or swales ~~shall be provided~~ to ensure drainage away from the structure. Swales shall be sloped a minimum of 2 percent when located within 10 feet of the building foundation. Impervious surfaces within 10 feet of the building foundation shall be sloped a minimum of 2 percent away form the building.

SECTION R506 CONCRETE FLOORS (ON GROUND)
Change Summary: Reinforcement placement requirements.

Section R506.2.4 Reinforcement Support. Where provided in slabs on ground, reinforcement shall be supported to remain in place from the center to upper one third of the slab, for the duration of the concrete placement.

SECTION 602 WOOD WALL FRAMING
Change Summary: The footnote "i" has been revised. The length and shank diameter is listed along with the pennyweight for each fastener.

Table R602.3.1 Fastener Schedule: Note I; Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking ~~and at all roof plane perimeters.~~ Blocking of roof or floor sheathing panel edges perpendicular to framing members need not be provided except as required by other provisions of this code ~~shall not be required except at intersection of adjacent roof planes~~. Floor ~~and roof~~ perimeter shall be supported by framing members or solid blocking.

Table R602.3 (2) Alternate Attachment: Revised the on-center spacing of fasteners so that the withdrawal strength of the assembly using the alternate is at least as strong as the fastens in Table R602.3 (1)

Section R602.6.1 Drilling and Notching of Top Plates. When piping or ductwork is placed in or partly in an exterior wall or interior load bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50 percent of its width, a galvanized metal tie of not less than 0.054 inches thick (16 ga) and 11/2 inches wide shall be fastened ~~to each plate~~ across and to the plate at each side of the opening with not less than eight 16d nails at each side or equivalent. See Figure R602.6.1
Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.

Section R602.8 Fireblocking
Change Summary: Modified item No.4 of the list of requirements.

Section R602.8 Fireblocking required. Fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space. Fireblocking shall be provided in wood frame construction in the following locations.

Exception No. 4 At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion.

Table R602.10.6.1 Wall Bracing and Table R602.10.6: Revised to add wider, up to 3'-6", and taller, up to 12 feet alternate braced wall panel in Seismic Design Categories A, B, and C and wind speeds less than 110 mph.

Section R602.10.6.2 and Figure R602.10.6.2 Alternate braced wall panel adjacent to a door or window opening: Added and additional bracing method (portal frame) to use adjacent to a window or door opening for opening width of 6 feet to 18 feet. Permits alternate panel width of 16 inches for a one-story building and 24 inches for the first story of a two-story building.

Section R602.10.8 Connections:
Change Summary: Revised to add requirements for blocking at a floor above a braced wall line. Added provisions for framing when a braced wall line is parallel to joist.

Section R602.10.8 Connections: Braced wall line sole plates shall be fastened to the floor framing and top plates shall be connected to the framing above in accordance with Table R602.3(1). Sills shall be fastened to the foundation or slab in accordance with Sections R403.1.6 and R602.11. Where joists are perpendicular to the braced wall lines above, blocking shall be provided under and in line with the braced wall panels. Where joists are perpendicular to braced wall lines below, blocking shall be provided over and in line with the braced wall panels. Where joists are parallel to braced wall lines above or below, a rim joist or other parallel framing member shall be provided at the wall to permit fastening per Table R602.3(1)

SECTION R613 EXTERIOR WINDOWS AND GLASS DOORS
Change Summary: Add the requirement that the lowest part of a clear opening of the window shall be 24 inches above the finished floor when located more than 72 inches above the finish grade or surface below.

Section R613.2 Window Sills: In dwelling units, where the opening of an operable window is located more than 72 inches above the finish grade or surface below, the lowest port of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which the window is located. Glazing between the floor

and 24 inches shall be fixed or have openings such that a 4 inch diameter sphere cannot pass through.

Exceptions:

1. Windows whose openings will not allow a 4 inch diameter sphere to pass through the opening when the opening is in its largest opened position.
2. Openings that are provided with window guards that comply with ASTM F2006 or F2090.

Section 702 INTERIOR COVERING

Change Summary: "Green board no longer allowed for showers or tubs.

Section R702.4.2 Cement, Fiber-cement and glass mat gypsum backer: Cement, fiber-cement, or glass matt gypsum backers in compliance with ASTM C1288, C1325, or C1178 and installed in accordance with manufacturer recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas.

SECTION 802 WOOD ROOF FRAMING

Change Summary: Additional language dealing with ties and connections.

Section R802.3.1 Ceiling joist and rafter connections. Ceiling joists and rafters shall be nailed to each other in accordance with Table~~s R602.3(1) and~~ R802.5.1(9) and the ~~assembly~~ rafter shall be nailed to the top plate in accordance with Table R602.3(1). Ceiling joists shall be continuous or securely joined in accordance with Table 802.5.1(9) where they meet over interior partitions and nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to the rafters.

Where ceiling joists are not connected to the rafters at the top wall plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joist are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be a minimum of 2 inch by 4 inch (nominal), installed in accordance with ~~subflooring or metal straps attached at the ends of the rafters shall be installed in a manner to provide a continuous tie across the building, or rafter shall be tied to 1 inch by 4 inch (nominal) minimum size crossties. The~~ the connection~~s~~ requirements in Table R802.5.1(9), ~~shall be in accordance with Table R602.3(1)~~ or connections of equivalent capacities shall be provided. Where ceiling joists or rafter ties are not provided ~~at the top plate~~, the ridge formed by these rafters shall be supported by a wall or girder designed in accordance with accepted engineering practice.

Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space, in accordance with Table R602.3(1). ~~Rafter~~ Collar ties shall be a minimum of 1 inch by 4 inch (nominal), spaced not more than 4 feet on center.

SECTION 806 ROOF VENTILATION

Summary Change: This new section specifies the conditions under which a conditioned attic assembly is permitted to be unvented.

Section R806.4 Conditioned attic assemblies: Unvented conditioned attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) are permitted under the following conditions:

1. No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
2. An air-impermeable insulation is applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable " shall be defined by ASTM E 283.

Exception: In zones 2B and 3B, insulation is not required to be air impermeable.

3. In the warm humid locations as defined in N1101.2.1:
   - 3.1 For asphalt roofing shingles: A 1 perm or less vapor retarder (determined by Procedure B of ASTM E96) is placed to the exterior of the structural roof deck; that is, just above the roof structural sheathing.
   - 3.2 For wood shingles and shakes: a minimum continuous ¼ inch vented air space separates the shingles/shakes and the roofing felt placed over the structural sheathing.

4. In zones 3 through 8 as defined in N1101.2 sufficient insulation is installed to maintain the monthly average temperature of the condensing surface above 45 degrees F. The condensing surface is defined as either the structural roof deck or the interior surface of an air-impermeable insulation applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable" is quantitatively defined by ASTM E 283. For calculation purposes, and interior temperature is assumed to be the monthly average outside temperature.

PROPOSED CITY AMENDMENS TO THE RESIDENTIAL CODE

SECTION R202 DEFINITIONS: Amend this definition to be as Accessory Structure defined in chapter 36 of the Land Development Code**.**

SECTION R301 DESIGN CRITERIA
Table R301.2 (1)
Ground Snow Load: 20 PSF
Wind Speed: 90 mph
Seismic Design Category: B
Weathering: Severe
Frost Depth: 24 Inches
Termite: Moderate to Heavy
Winter Design Temp: 9 degrees F
Ice Barrier Underlayment Requirements: No
Flood Hazards: April 19, 1989 G. O. #4026
Air Freezing Index: 659
Mean Annual Temp: 56.1 degrees F.

SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENINGS
Change Summary: Clarification of a bedroom in a basement.

Section R310.1 Emergency escape and rescue required. A sleeping room in a basement shall be defined as any room meeting the minimum square footage of Section R304 and containing a closet.

R317 DWELLING UNIT SEPARATION
Change Summary: New patio home requirements.

R317.4 Patio Home dwelling unit separation: The common wall separating the two dwelling units shall be constructed as a 2 hour rated 8 inch masonry block fire wall with the following design criteria:

1. The wall shall be continuous from the foundation to the underside and tight to the roof deck. The small void (no greater than ½ inch) between the top of the block to the underside of the deck shall be sealed solid with safing insulation. On the underside of the rafter and extending a minimum of 4 feet back from the face of the fire wall one layer of 5/8 inch Type "X" gypsum board shall be installed.
2. The wall shall be constructed such that it is totally independent of the adjacent construction and will resist collapse. It shall not be used as a structural element for the adjoining framing.
3. The wall shall extend tight to a noncombustible exterior wall finish material.
4. In the case where the roof overhang extends beyond the face of the block wall both rafters and ceiling joist located next to and on either side of the fire wall shall be covered on both sides with two layers of 5/8" Type "X" gypsum board from the fascia board to the fire wall.
5. No penetrations of any kind will be allowed in or through the block wall.

SECTION R403 FOOTINGS
Change Summary: Clarification and pier requirements.

Section R403.1.3.1 Foundations with stemwalls. Foundations with stem walls shall have installed a minimum of one No. 4 bar within 12 inches of the top of the wall and one No. 4 bar located 3 inches to 4 inches from the bottom of the footing. Vertical No. 4 bars shall be used to adequately support the horizontal reinforcement.

Section R403.4 Pad and Pier Foundations: All concrete pads and piers shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. The concrete piers shall meet the additional requirements.

1. The pier must be centered on and along the beam centerline and must be uniform in size over the entire height of the pier. The size of the pier shall be equal to or greater than the width of the beam being supported.
2. The pier shall be plumb to within 1/8 of an inch for every 12 inches of height.
3. All piers shall be reinforced with 2 No. 4 dowels.

SECTION R404 FOUNDATION AND RETAINING WALLS
Change Summary: The deleted section deals with conditions which are not encountered in our region of the country.

Section R404. 1 Concrete and masonry walls: Concrete and foundation walls shall be selected and constructed in accordance with the provisions of Section R404 or in accordance with ACI 318, ACI 322. NCMA TR68-A or ACI 530/ASCE5/TMS 402 or other approved structural standards. When ACI 318, ACI 322 or ACI 520/ASCE5/TMS 402 or the provisions of Section R404 are used to design concrete or masonry foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority. ~~"Foundation walls that meet all of the following shall be considered laterally supported:" as well as the listed items 1 through 5. Delete Table R404.1 (1); Table R404.1 (2) Table R404.1 (3) and all related references to these deletions.~~

SECTION 907 REROOFING
Change Summary: Modification to parallel local conditions

Section R907.3 Re-covering versus replacement: New roof covering shall not be installed without removing existing roof covering where any of the following conditions occur:
~~4. For asphalt shingles, when the building is located in an area subject to moderate or severe hail exposure according to Figure R903.5~~

RESIDENTIAL CODE MECHANICAL SECTION

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION M1302 APPROVAL
Change Summary: Clarification of listed and labeled.

Section M1302.1 Listed and labeled. ~~All appliances shall be listed and bear the label of an approved agency~~ Appliances regulated by this code shall be listed and labeled for the application in which they are installed and used, unless otherwise approved in accordance with Section R104.11

SECTION M1305 APPLIANCE ACCESS
Change Summary: Clarification

Section M1305.1 Appliance Access for Inspection, Service, Repair, and Replacement. Appliances shall be accessible for inspection, service, repair, and replacement without removing permanent construction, other appliances, or any other piping or ducts not connected to the appliance being inspected, serviced, repaired, or replaced. ~~Thirty inches of~~ A level working space at least 30 inches deep and 30 inches wide shall be provided in front of the control side to service the appliance. Installation of room heaters shall be permitted with at least an 18 inch working space. A platform shall not be required for room heaters.

SECTION M1411 HEATING AND COOLING EQUIPMENT
Change Summary: This added section allows the use of a water detection device.

Section M1411.3.1 Auxiliary and secondary drain systems. In addition to the requirements of Section M1411.3, a secondary drain or auxiliary drain pan shall be required for each cooling or evaporator coil where damage to any building components will occur as a result of overflow from the equipment drain pan or stoppage in the condensate drain piping. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1 percent slope). Drain piping shall be a minimum of ¾ inch nominal pipe size. One of the following methods shall be used.

Options 1, 2, 3 no change.
4. A water level detection device conforming to UL 508 shall be provided that will shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line or the equipment supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of such pan.

Section M1411.3.1.1 Water level monitoring devices. On down-flow units and all other coils that have no secondary drain and no means to install an auxiliary drain pan, a water-level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Externally installed devices and devices installed in the drain line shall not be permitted.

Section M1411.4 Auxiliary drain pan. Category IV condensing appliances shall have an auxiliary drain pan where damage to any building component will occur as a result of stoppage in the condensate drainage system. These pans shall be installed in accordance with the applicable provisions of Section M1411.3
Exception: Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

SECTION M1501 GENERAL
Change Summary: This section will now require that all mechanical exhaust system air shall be discharged to the outdoors.

M1501.1 Outdoor discharge. The air removed by every mechanical exhaust system shall be discharged to the outdoors. Air shall not be exhausted in an attic, soffit, ridge vent or crawl space.

Exception:

1. Whole-house ventilation-type attic fans that discharge into the attic space of dwelling units having private attics shall be permitted.
2. Toilet room exhaust fans shall be permitted to exhaust through the soffit provided that
    a. The duct shall terminate at the soffit panel to an approved mechanical louver or vent.
    b. The adjoining soffit space on either side of the rafter containing the exhaust duct as well as the space containing the exhaust duct penetration shall be a solid non-vented material.

PROPSED CITY AMENDMENTS TO THE MECHANICAL CODE SECTION

NONE

RESIDENTIAL CODE FUEL GAS SECTION

MAJOR CHANGES AS ADOPTED BY THE INTERNATIONAL CODE COUNCIL

SECTION G2415 PIPE SISTEM INSTALLATION
Change Summary: Additional prohibited location dealing with townhouse units.

Section G2415.1 Prohibited Locations. Piping shall not be installed in or through a circulating air duct, clothes chute, chimney or gas vent, ventilating duct, dumbwaiter or elevator shaft. Piping installed downstream of the point of delivery shall not extend through any townhouse unit other than the unit served by such piping.

PROPOSED CITY AMENDMENTS TO THE FUEL GAS CODE SECTION

SECTION G2413 PIPE SIZING
Add Section G2413.6.1 2PSIG or less: For design operating pressures of 2 psig or less, piping materials shall be in conformance with Section 403 of the International Fuel Gas Code/2006 as amended herein.

Add Section G2413.6.2 Above 2 PSIG: Design operating pressures greater than2 psig and less than 5 psig shall only be allowed if the pipe type is welded steel or Corrugated Stainless Steel Tubing.

SECTION G2415 PIPING SYSTEM INSTALLATION
Add Section G2415.13.1 Location at gas meter: All gas piping at the meter location shall terminate at a point no greater than 10 feet from the corner of the structure closest to the city gas main.

Add Section G2415.5.1 Corrugated Stainless Steel Tubing (CSST) Physical damage protection: All CSST piping located within a wall cavity shall be protected by installing the CSST inside a metal sleeve made of Schedule 40 steel pipe or floppy galvanized steel conduit as provided by the CSST manufacturer.

Add Section G2415.5.2 Corrugated Stainless Steel Tubing (CSST) Physical damage protection: All CSST striker plate protection shall be CSA approved hardened carbon steel, listed for CSST systems.

Add Section G2415.14.2.1 Corrugated Stainless Steel Tubing (CSST): At the meter location all CSST piping shall terminate utilizing the pipe manufacturer's approved meter termination fitting securely anchored to the structure in such a manner to properly support the meter. No CSST fitting connections shall be concealed within the structure at the meter location.

SECTION G2416 PIPE BENDS AND CHANGES IN DIRECTION
Add Section G2416.4 Corrugated Stainless Steel Tubing (CSST): The minimum bending radius for CSST shall be as follows:

Pipe size 3/8,1/2 and ¾ inch diameter – minimum radius 3 inches
Pipe size 1, 11/4, 11/2 inch diameter – minimum radius 5 inches
Pipe size 2 inch and larger – minimum radius 6 inches

SECTION G2417 INSPECTION, TESTING AND PURGING
Section G2417.4.1 Test pressure: Add the following; The test on all gas piping designed as a 2PSIG or less system shall be 20 PSIG with a 15 minute duration. The test on all gas piping designed above 2 PSIG shall be 20 PSIG with a 120 minute duration.

SECTION G2418 PIPE SUPPORT
Add Section G2418.3 Corrugated Stainless Steel Tubing (CSST): All CSST greater than 16 inches in length and run horizontally shall be continuously supported and shall be attached to the continuous support member at intervals not exceed 6 feet on center.

RESIDENTIAL CODE PLUMBING SECTION

MAJOR CHANGES AS ADOPTED BY THE INTERNATINAL CODE COUNCIL

SECTION P2713 BATHTUBS
Change Summary: Temperature-limiting devices shall now be required.

Section P2713.3 Bathtub and whirlpool bathtub valves: The hot water supplies to bathtubs and whirlpool bathtubs shall be limited to a maximum of 120 degrees F by a water temperature limiting device that conforms to ASSE 1070, except where such protection is otherwise provided by a combination tub shower valve in accordance with Section P2708.3

SECTION P2720 WHIRLPOOL BATHS
Change Summary: This new section addresses the access requirements for whirlpool tub circulation pumps.

Section P2720.1 Access to pump. Access shall be provided to circulation pumps in accordance with the fixture manufacturer's installation instructions. Where the manufacturer's instructions do not specify the location and minimum size of field fabrication access openings, a 12 inch by 12 inch minimum size opening shall be installed to provide access to the circulation pump. Where pumps are located more than 2 feet from the access opening, an 18 inch by 18 inch minimum size opening shall be installed. A door or panel shall be permitted to close the opening. In all cases, the access opening shall be unobstructed and be of a size necessary to permit the removal and replacement of the circulation pump.

SECTION P2721 BIDET INSTALLATIONS
Change Summary: Will now require temperature limiting deice for bidets

Section 408.3 Bidet water temperature. The discharge water temperature from a bidet shall be limited to a maximum temperature of 110 degrees F by a water-temperature-limiting device conforming to ASSE 1070.

PROPOSED CITY AMENDMENTS TO THE PLUMBING CODE SECTION

SECTION P3111 COMBINATION WASTE AND VENT SYSTEM
Section P3111.1 Type of fixtures: A combination waste and vent system shall not receive the discharge of a food waste grinder, or kitchen sink

SECTION P3114 AIR ADMITTANCE VALVES
Add Section P3114.3.1 Limited Usage: The use of air admittance valves shall be permitted only in the remodel of existing buildings and shall not be permitted in new buildings and building additions unless prior approval is granted by the authority having jurisdiction.

2005 NATIONAL ELECTRICAL CODE

PROPOSED CITY AMENDMENTS TO THE ELECTRICAL CODE

ARTICLE 230 SERVICES
Section VI Service Equipment – Disconnecting Means
Section 230.70(A)(1) 1 Amend as follows: The service disconnecting means shall be installed at a readily accessible location either outside of a building or structure or inside nearest the point of entrance to the service conductors. The maximum length of conduit between the meter back and service disconnect shall not exceed 36-inches unless authorized by the authority having jurisdiction prior to installation.

Section 230.72(A) Grouping of Disconnects Amend as follows: General. The two to six disconnects as permitted in 230.71 shall be grouped. The word "grouped" shall be defined as being within two feet of each other and on the same wall with no intervening obstructions which exceed 8-inches in depth from the wall surface unless authorized by the authority having jurisdiction prior to installation. Each disconnect shall be marked to indicate the load served.

GENERAL ORDINACE 5337 ADMINISTRATIVE

Section 36-1229.2 Work Exempt from permit
Gas: Add item #5 Portable heating appliances.
Mechanical: Delete item #1 Portable hating appliances and renumber remaining sections one (1) through eleven (11).

Plumbing:

1.The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any ~~concealed trap~~, drainpipe, water, soil, waste of vent pipe becomes defective and it becomes necessary to remove and replace more than twentyfour (24) inches of length ~~the same~~ with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures~~, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures~~. or the removal and replacement of a like fixture, provided such repairs and replacement does not involve or require the rearrangement of service valves or associated piping.